REMARKS

The Office Action that was mailed on September 7, 2006, rejected all pending claims 1-21, objected to claims 5 and 6, and requested that Figure 3 be labeled "Prior Art." Applicant has amended independent claims 1, 13, 14 and 21 to more particularly define the subject matter sought to be patented, and has amended dependant claims 3-7 for consistency with amended claim 1. The amendments add no new matter. Claims 1-21 remain pending. Applicant requests reconsideration in view of the amendments above and the following remarks.

Drawings

The Office Action objected to Figure 3 and contended that the figure should be designated "Prior Art" by legend because only that which is old is illustrated. Applicant disagrees. The Office Action references MPEP § 608.02(g), which pertains to "[f]igures showing the prior art." Applicant submits that Figure 3 and the corresponding description does not show and describe the prior art, and therefore MPEP § 608.02(g) does not apply.

Figure 3 and the corresponding description describe features not found in the prior art. For example, figure 3 "is a block diagram of one embodiment of the prediction engine 104 shown in FIG. 1." (*See* specification at page 9, lines 24-25). A prediction engine of the type described throughout Applicant's specification exists nowhere in the prior art, and is therefore novel. Figure 3 includes "memory 302 [that] stores information within the prediction engine 104," and is "a computer-readable medium" in one implementation. (*See* specification at page 10, lines 1-2). Figure 3 also includes a "storage device 304 [that] is capable of providing mass storage for the prediction engine 104," and is "a computer-readable medium" in one implementation. (*See* specification at page 10, lines 7-8). Claim 21 is directed to a computer-readable medium having computer-executable instructions contained therein that perform a novel method. As described below, claim 21 is directed to patentable subject matter, and therefore Figure 3, by displaying a computer-readable medium that stores instructions that when executed perform a novel method, shows novel, non-obvious and useful subject matter and does not show prior art.

Figure 3 further includes a "processor 300 [that] is capable of processing instructions for execution within the prediction engine 104." *(See* specification at page 9, lines 27-28). Claim 14 is directed to a computer system that includes a prediction engine that is operable to perform a novel method. As described below, claim 14 is directed to patentable subject matter, and therefore Figure 3, by displaying a block diagram of one embodiment of a novel prediction engine, does not show prior art.

Accordingly, MPEP § 608.02(g) does not apply to Figure 3, and Applicant asks that the objection to the figure be withdrawn.

Claim Objections

The Office Action objected to claims 5 and 6 under 37 C.F.R. 1.75(c) as being of improper dependant form for failing to further limit the subject matter of a previous claim. While Applicant does not concede the correctness of the objection, Applicant has nevertheless amended independent claim 1 to advance prosecution. Amended claim 1 recites a "first input value set" and a "second input value set" to more particularly point out that either or both of the input value sets may comprise a single input value. Applicant has amended dependant claims 3-7 for consistency with amended claim 1. The amendments add no new matter. Support for the amendments can be found throughout Applicant's specification as originally filed, for example at page 3, lines 21-26, at page 3, line 30 to page 4, line 2, and at page 5, lines 14-17. Applicant submits that the amendments address the Office Action's concerns regarding improper dependant claim form, and requests that the objections to claims 5 and 6 be withdrawn.

Claim Rejections – 35 U.S.C. § 101

The Office Action rejected claims 1-21 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Of these, claims 1, 13, 14 and 21 are independent.

With regard to claims 1-12, the Office Action contended that the claims do not produce a useful, tangible, and concrete result. While Applicant does not concede the correctness of the rejection, Applicant has nevertheless amended independent claim 1 to advance prosecution and further clarify the useful, tangible, and concrete result. Applicant submits that the amendment

addresses the Office Action's concerns regarding non-statutory subject matter, and requests that the non-statutory subject matter rejections to claims 1-12 be removed.

With regard to claims 13-21, the Office Action contended that the claims were directed to software *per se*. Applicant disagrees. While Applicant does not concede the correctness of the rejection, Applicant has nevertheless amended independent claims 13, 14 and 21 to advance prosecution and further clarify the useful, tangible, and concrete result. Also, claim 14 includes a "prediction engine," and Applicant's specification describes FIG. 3 as "one embodiment of the prediction engine 104 shown in FIG. 1." (*See* specification at page 9, lines 24-25). In the described implementation, "the prediction engine includes a processor 300, a memory 302, a storage device 204, and an input/output device 306." (*See* specification at page 9, lines 25-26). Thus, Applicant submits the specification includes sufficient definition that the product includes hardware elements with regard to claim 14. Also, claims 13 and 14 include an application system, and Applicant's specification describes that in an implementation, "the application system 102 may also include various engines and repositories used for collecting and storing information." (*See* specification at page 3, lines 14-16). A repository, at least, is a hardware element, and Applicant submits that claims 13 and 14 include sufficient hardware elements. Claim 21 is directed to a computer-readable medium having computer-executable instructions for performing a method. Applicant's specification describes that in an implementation, "the memory 302 is a computer-readable medium." (*See* specification at page 10, lines 1-2). Applicant submits that claim 21 is directed to an appropriate medium.

Thus, Applicant submits each of claims 1-12 produce a useful, tangible, and concrete result, and that the specification includes sufficient definition that the product includes hardware elements with regard to each of claims 13-20, and that claim 21 is directed to an appropriate medium. Accordingly, Applicant submits that each of claims 1-21 are directed to statutory subject matter, and asks that the non-statutory subject matter rejections be removed for claims 1-21.

Claim Rejections – 35 U.S.C. § 112

Rejections under 35 U.S.C. § 112, first paragraph

The Office Action rejected claims 1-21 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Office Action contended that "application system" is not sufficiently described in the specification so as to reasonably convey to one skilled in the art that the inventors, at the time of filing, had possession of the claimed invention. Applicant disagrees.

Applicant's specification as originally filed provides sufficient written description to comply with the written description requirement of 35 U.S.C. § 112. As to the Office Action's concern regarding "application system," Fig. 1 of Applicant's specification shows the application system 102 and the specification describes the application system at numerous locations. For example, at page 3, lines 11-14, an implementation is described where the "application system 102 includes various run-time applications, and that, in an implementation, "these applications are software applications running in a customer relationship management (CRM) environment, and may include customer interaction center or sales applications." The specification further describes an implementation where "the application system 102 may also include various engines and repositories used for collecting and storing information, such as customer or key performance indicator (KPI) information." (*See* specification at page 3, lines 14-16). Moreover, in an implementation, "[t]he application system 102 sends requests to the prediction engine 104 for executing prediction tasks," that "may include one or more input values that are used during task execution." (*See* specification at page 3, lines 16-18). In an implementation, "the application system 102 provides these values to the prediction engine 104 when they are available." (*See* specification at page 3, lines 20-21). Specific examples are described at Applicant's specification page 3, line 10 to page 4, line 7. Another example that includes a call-center agent using the application system is described from page 4, line 8 to page 5, line 13.

As such, Applicant's specification as originally filed has sufficient written description of an "application system," and Applicant accordingly asks that the 35 U.S.C. § 112, first paragraph written description rejections of claims 1-21 be withdrawn.

Rejections under 35 U.S.C. § 112, second paragraph

The Office Action also rejected claim 21 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention. Specifically, the Office Action noted that claim 21 lacks antecedent basis for the limitation "the application system." Applicant has amended claim 21 to address the antecedent basis concern, and asks that the 35 U.S.C. § 112, second paragraph rejection of claim 21 be withdrawn.

Claim Rejections – 35 U.S.C. § 102

Rejections based on Tinsley

The Office Action rejected claims 1-11 and 13-21 under 35 U.S.C. § 102(e) as being anticipated by U.S. Publication No. 2003/0043815 to Tinsley et al. ("Tinsley"). Applicant submits that the rejected claims define subject matter that is patentable over Tinsley.

Tinsley discloses using multiple stages of switches to route transactions between a source address and a destination address of a data communications system. (Paragraph 0023). Tinsley discloses that regional servers 55 process transactions with terminals or computers connected to a network and capture usage information for each user. (Paragraph 0025). A switch periodically takes snapshots of traffic and processor usage, and the information is archived. (Paragraph 0040). The latest information is correlated with previously archived data for usage patterns. (Paragraph 0040). Tinsley discloses a fabric that can be categorized in two high level groups: 1) audio and video programs; and 2) applications running on the fabric. (Paragraphs 0040-0042).

Tinsley does not disclose or suggest the elements of Applicant's amended claim 1. For example, Tinsley fails to disclose or suggest a computer-implemented method that includes saving state information generated from a computation of a first prediction result and using a data mining model along with the state information and a second input value set to compute a second prediction result, as recited in claim 1. In particular, Applicant's claim 1 recites that saved state information generated during computation of a first prediction result is used to compute a second prediction result, and Tinsley fails to disclose or suggest at least this aspect of Applicant's claim 1.

In contending that Tinsley anticipates Applicant's claim 1, the Office Action cited Tinsley's disclosure of periodically taking snapshots of traffic and processor usage as anticipating Applicant's first and second input data sets. (Office Action page 5). Also, the Office Action cited "previously archieved (*sic*) data," (Office Action page 5), as anticipating Applicant's "saving state information" claim 1 limitation, though Applicant believes that the Office Action was referring to Tinsley's disclosure of "previously archived data." However, Tinsley's archived data is very different from the state information that is stored after being generated from the computation of the first prediction result as recited in Applicant's claim 1. Tinsley, in contrast, merely correlates new data with previously archived data for usage patterns. (Paragraph 0009). At most, Tinsley discloses archiving input value sets, but does not disclose or suggest storing state information of the type recited in Applicant's claim 1. Indeed, the Office Action has cited Tinsley's "snapshots of traffic" as anticipating Applicant's input value set claim limitations, and it is this same information that Tinsley discloses as being archived, such that later information may be correlated with previously archived data. (Paragraph 0040). Nowhere does Tinsley disclose or suggest saving state information generated during the computation of a first prediction result and later using the state information to compute a second prediction result.

Claim 1 is also not obvious in view of Tinsley, either alone or in view of any other reference of record. Applicant's claim 1 method provides various advantages that are not possible with the structures disclosed by Tinsley, and are not even contemplated by Tinsley. For example, the saved state information of Applicant's claim 1 enables the second prediction result to be computed using a reduced number of computations because previously made computations need not be repeated. (*See* Applicant's specification, page 6, lines 15-19). As such, the method of Applicant's claim 1 may permit the generation of successive prediction output to be expedited in a way not possible using the structures disclosed by Tinsley, where only archiving input value sets is disclosed or suggested.

Accordingly, claim 1 defines subject matter that is patentable over Tinsley, as do rejected dependent claims 2-11. Independent claims 13 and 21 are directed to a computer system programmed to execute the method of claim 1, and to a computer-readable medium having instructions contained therein for performing the method of claim 1, respectively, and are therefore patentable over Tinsley for at least the reasons described above with reference to

claim 1. Similarly, independent claim 14 is directed to a computer system that includes a prediction engine operable to perform the method of claim 1, and is therefore patentable over Tinsley for at least the reasons described above with reference to claim 1, as are rejected dependent claims 15-20. Thus, Applicant asks that the anticipation rejections of claims 1-11 and 13-21 based on Tinsley be withdrawn.

Rejections based on Tamayo

The Office Action rejected claims 1, 12-14 and 21 under 35 U.S.C. § 102(b) as being anticipated by U.S. Publication No. 2002/0083067 to Tamayo et al. ("Tamayo"). Applicant submits that the rejected claims define subject matter that is patentable over Tamayo.

Tamayo discloses an enterprise web mining system and method. (Title). Tamayo discloses collecting data from a plurality of data sources, integrating the data, generating data mining models, and generating recommendations. (Paragraph 0007).

Tamayo does not disclose or suggest the elements of Applicant's amended claim 1. For example, Tamayo fails to disclose or suggest a computer-implemented method that includes saving state information generated from a computation of a first prediction result and using a data mining model along with the state information and a second input value set to compute a second prediction result, as recited in claim 1. In particular, Applicant's claim 1 recites that saved state information generated during computation of a first prediction result is used to compute a second prediction result, and Tamayo fails to disclose or suggest at least this aspect of Applicant's claim 1.

In contending that Tamayo anticipates Applicant's claim 1, the Office Action cited paragraph 0072 of Tamayo, where saving a visitor's web-based behavior to a database is disclosed. (Office Action page 7). The Office Action contended that this anticipates Applicant's "saving state information generated from the computation of the first prediction result" claim 1 limitation. This is not correct. Tamayo's saved visitor web-based behavior is very different from the state information that is stored after being generated from a computation of a first prediction result as recited in Applicant's claim 1. Tamayo, in contrast, merely discloses updating previously stored web-based behavior with data collected in subsequent sessions and using the newly acquired data to increase the accuracy of predictions. (Paragraph 0072). Thus, like Tinsley, Tamayo discloses at most archiving input values. Nowhere does Tamayo disclose

or suggest saving state information generated during the computation of a first prediction result and later using the state information to compute a second prediction result. While Tamayo discloses increasing accuracy of predictions using data collected in subsequent sessions, (paragraph 0072), disclosure of simply collecting more data and computing a new prediction does not disclose or suggest the requirements of Applicant's claim 1 where stored state information generated during a computation of a first prediction result is used to compute a second prediction result.

Claim 1 is also not obvious in view of Tamayo, either alone or in view of any other reference of record. Applicant's claim 1 method provides various advantages that are not possible with the structures disclosed by Tamayo, and are not even contemplated by Tamayo. For example, the saved state information of Applicant's claim 1 enables the second prediction result to be computed using a reduced number of computations because previously made computations need not be repeated. (*See* Applicant's specification, page 6, lines 15-19). As such, the method of Applicant's claim 1 may permit the generation of successive prediction output to be expedited in a way not possible using the structures disclosed by Tamayo, where only archiving input value sets is disclosed or suggested.

Accordingly, claim 1 defines subject matter that is patentable over Tamayo, as does rejected dependent claim 12. Independent claims 13 and 21 are directed to a computer system programmed to execute the method of claim 1, and to a computer-readable medium having instructions contained therein for performing the method of claim 1, respectively, and are therefore patentable over Tamayo for at least the reasons described above with reference to claim 1. Similarly, independent claim 14 is directed to a computer system that includes a prediction engine operable to perform the method of claim 1, and is therefore patentable over Tamayo for at least the reasons described above with reference to claim 1. Thus, Applicant asks that the anticipation rejections of claims 1, 12-14 and 21 based on Tamayo be withdrawn.
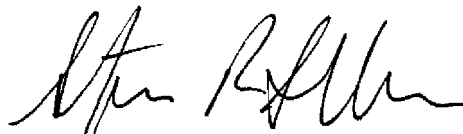
CONCLUSION

Applicant submits that claims 1-21 are in condition for allowance, and requests that the Examiner issue a notice of allowance.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

The Commissioner is authorized to apply the amount of $1,020 for the Petition for a Three-Month Extension of Time fee, and apply any other charges or credits to Deposit Account No. 06 1050.

Respectfully submitted,

Date: 5 Mar. 2007

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